

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	SU-CHEN FAN et al.)	
Filed:	Herewith)	
For:	PRE-TREATMENT FOR SALICIDE PROCESS)	

#3A

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Prior to the examination on merits, please amend the above-identified application as follows:

IN THE SPECIFICATION:

Please replace the paragraph beginning at page 1, line 4 with the following rewritten paragraph:

This application is a continuation application of, and claims the priority benefit of, U.S. application serial No. 09/77,583 filed on February 6, 2001, which in turn is a continuation application of U.S. application serial No. 09/417,357 filed on October 13, 1999.

Please replace the paragraph beginning at page 5, line 19 with the following rewritten paragraph:

Fig. 4 shows the design of the pre-processing chamber. The pre-processing chamber comprises a target 306, first and second RF power supplies 302, 304 for ionizing sputtered metal atoms, and a heater 310 (or E-chuck) for providing the substrate bias. The ionization energy of titanium and argon are 6.8 eV and 15.8 eV, respectively. By proper modification of the RF power, substrate position (such as on the IMP target or on the heater), and substrate bias, argon ions can be manipulated, without argon deposition, to simultaneously dry clean and amorphize the exposed substrate 300 and polysilicon gate. Note that argon (AMU 40) is heavier than silicon (AMU 28), and is therefore more efficient in the amorphization of the exposed substrate 300 and